

In the Claims:

1. (currently amended) A cathode ray tube having a cathode for emitting electrons that form an electron beam therein, said cathode comprising:

a basis metal formed of a metal alloy, said alloy for the manufacture of cathodes for cathode ray tubes, comprising including mainly nickel, wherein said alloy includes magnesium (Mg), the and a weight concentration C_{Mg} of magnesium (Mg) which is between 0.01% and 0.1%.

2. (currently amended) The metal alloy cathode ray tube according to Claim 1, wherein said alloy also includes aluminum, the weight concentration C_{Al} of which satisfies the relationship:

$$C_{Al} \leq 0.14 \times (0.1 - C_{Mg}).$$

3. (currently amended) The metal alloy cathode ray tube according to Claim 1, wherein said alloy also contains a weight concentration C_{Al} of aluminum and in such that, after the cathode has been activated, the percentage of the surface of the alloy below an emissive layer of the cathode covered by stable crystallites is less than or equal to 3%.

4. (currently amended) A The cathode ray tube comprising a basis metal which is a metal alloy according to Claim 1, wherein said basis metal includes an emissive part consisting of a layer of alkaline-earth oxides.

5. (cancelled)